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ABSTRACT

Designed for use by teachers of the trainable mentally retarded, primary through postsecondary levels, this curriculum guide integrates development of verbal and written communication skills with the student's career development. The guide contains instructional objectives, suggested learning activities and teaching techniques, and information on the characteristics, needs, and development of the retarded student. Organization is by seven curriculum categories: (1) language arts, (2) handwriting, (3) general information awareness, (4) number concepts, (5) perceptual training, (6) cooperative education, and (7) employment orientation. Four developmental phases are covered in each category. Phase 1 (primary) includes language development, sight word recognition, knowledge of address recognition of words necessary to function in everyday living, and printing skills. Phase 2 (intermediate) includes language development, sight word recognition, and printing skills. Phase 3 (secondary or advanced) also includes language development, sight word recognition, and printing skills. Phase 4 (postsecondary) includes speaking vocabulary and handwriting. The employment orientation section is divided into two parts: simulated work and basic skill training. Outlines are provided covering objectives, procedures, and needed materials for building maintenance, landscaping, floor and indoor maintenance, window cleaning, food service, laundry, task development, candlemaking, record album, sanding and staining, telephone pads, and embosograf cardboard signs. A bibliography is appended. (JT)

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State of New Jersey
Department of Education
Division of Vocational Education

COMPREHENSIVE

CAREER EDUCATION CURRICULUM GUIDE

FOR THE TRAINABLE

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U S DEPARTMENT OF HEALTH, EDUCATION & WELFARE
NATIONAL INSTITUTE OF EDUCATION

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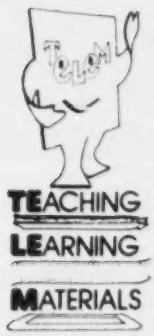

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PREFACE

This publication is one of a series of curriculum documents in career education written under the statewide curriculum development project conducted by the New Jersey Curriculum Management Center. Materials developed under this project are published by the New Jersey Vocational-Technical Education Curriculum Laboratory in order to ensure the widespread availability of these materials to practitioners in the field at a reasonable cost.

Dr. Joseph F. Kelly

Project Director
New Jersey Curriculum Management Center

LANGUAGE ARTS

Since the trainable retarded child is limited in many ways, speech becomes one of his most important ways of communication. Low intelligence is not necessarily a "death warrant" for a child and a child's handicap may be lessened by improving his articulation. Adequate speech may make the difference between self-sufficiency and dependency – between a lifetime in an institution at taxpayer's expense and vocational adjustment in society.

Therefore, communication through language is easily one of the most important ways in which the trainable mentally retarded child will be able to function in everyday living. Verbal and written communication, which is so much a part of the "normal" child's life, is much more difficult for the trainable child. The trainable child will not be able to read and write proficiently. Therefore, his ability to communicate verbally becomes of prime importance. This language arts section is divided into several categories.

The Language Arts section is divided into four phases to provide opportunities for advancement in the student's understanding of concepts and word meanings. Phase I (Primary) includes language development, sight word recognition, knowledge of address, recognition of words necessary to function in everyday living, and printing skills. Phase II (Intermediate) includes language development, sight word recognition, and printing skills. Phase III (Secondary or Advanced) also includes language development, sight word recognition, and printing skills. Phase IV (Post Secondary) includes speaking vocabulary and handwriting.

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A. Language Development

1. Develop the ability of the student to make his needs known.

a. Allow the child to use gestures such as pointing.

When this occurs the teacher will take the child to the thing, repeating the word for the thing.

Example: The child wants a drink of water – he points to the fountain. The teacher takes him to the fountain. On the way, the teacher is repeating the correct word for the object – water, water, etc. When they get to the fountain, the teacher may turn it on, put the child's hand in the water, repeating the word water, and permitting the child to take a drink. After this has been accomplished, the teacher may use a simple sentence or phrase such as, "Water good, Johnny wants water, water cold, etc.," to reinforce the idea "water". At this point accept any vocalization that sounds like water, e.g., wa wa, woo woo, etc.

Use the same procedure with other things the child shows a need for, e.g., cup, glass, food, etc.

When you are reinforcing a word, use as many of the other senses that you can,such as touching, smelling, seeing, etc.

The teacher encourages and accepts vocal sounds for the child's wants. The teacher, when possible, should encourage the child to repeat the correct word.

b. Develop flash cards for such words as eating, hungry, drinking, thirsty, water. Also use the pictures in the *Peabody Language Development Kit.*

c. Use activities where the teacher can elicit vocal sounds from the child in relation to his other desires. This will gradually increase his or her language ability.

Role play with the children in the class.

Set up a situation where the child has to ask for something, pretend to be the parent, mailman, policeman, etc. (Also encourage the parents of the child to do the same. Guidance on the teacher's part is necessary for the parents.)

2. Increase the child's speaking ability vocabulary.

   a. Before the child can develop good speaking habits, the speech articulation should be strengthened through various exercises and games.

      Examples:
      Blowing – blowing bubbles,
      blowing ping pong balls in a game,
      blowing tissues for movement
      Puffing – ppppppp for the p sound,
      bbbbbbb for the b sound

      Making sounds of animals, familiar objects, fire engines, horns, etc.

      Role playing – favorite cars, motorbikes, fire engines, police cars, etc.

      Teach the children how to listen. Listen to records with farm animals, city sounds, etc. After this exercise let the children make the sounds that they heard.

      Tongue exercises are also needed. Use such tongue exercises as pretending to lick an ice cream cone, lick something from a spoon, etc.

   b. Discuss weather.

      Introduce such words as:
      rain
      cold
      snow
      wet
      hot
      sun

      Discuss the type of dress that is worn for the type of day, e.g., cold day, wet day, etc.

      Have pictures on felt depicting type of day; have children use these pictures to make a picture of the type of day. (flannel boards)
      Dress dolls for the type of day it is – have boy/girl doll. (Good for eye-hand coordination also)

      Introduce such words as:
      boots
      sweater
      coat
      hat
      mittens
      dress
      umbrella, etc.

Have children tell about what kind of day it is; have them ask each other questions about the weather, what to wear, etc.

c. Use action words and phrases during such activities as: running, jumping, eating, resting. E.g., the teacher will say, "We are running, See John run. Can you jump?"

Develop games using action words such as line the children against the blackboard and say, "May can take one step. John can take two jumps." etc.

d. Puppetry is a fine media by which the child will respond to oral language – He or she may even attempt to speak. Role play with puppets. Have puppets ask the child simple questions such as, "What color are your shoes? Who has on brown and white shoes?" Have children act with the puppets, ask each other questions, etc.

e. Finger playing often gives the child an opportunity to speak plus developing hand coordination.

f. Repetition of rhymes also makes words familiar to children. Incorporate this with body movements. (Clap hands, wiggle, stamp feet, etc. while saying groups of rhyming words.)

g. Use records and tapes to have children learn body parts, animals and animal sounds, and sounds that are familiar to the child, such as hammering, closing of the door, etc.

B. Sight Word Recognition

1. The child should be able to know and recognize his first name and surname.

a. Teacher should label each child's dish first with the child's first name. When the child can recognize this, include his surname.

b. All of the child's belongings should also be labeled with his name.

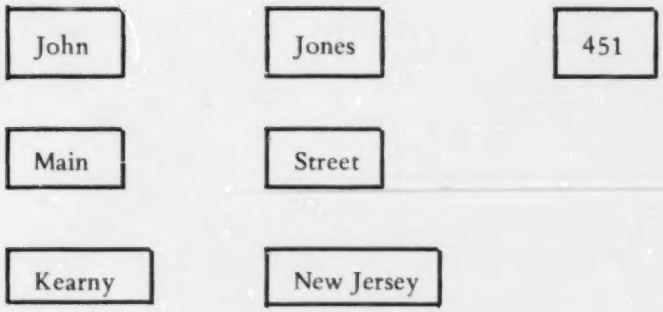
c. Use the child's name as much as possible during the day. Have the other children in the class also use each others' names as much as possible.

C. Knowledge of Address

1. Importance of address for safety, etc.

a. Teacher should try to use the child's address as much as possible. Make a tape recording of the child's name and address. Use tape, records, or voice for games. Reinforce child's name and address, e.g., "When you hear your name and address on the tape raise your hand."

There are many ways of reinforcement. Have cards printed up with flannel backing; use the child's first name and surname, his address, street and city, e.g.,



Mix order and have child place on board in correct order, etc.

b. Have children draw a house on paper. Correlate other activities such as art for coloring the house the same as the child's house; draw windows and doors (fine hand movement and perception); paste on child's address for reinforcement or remembering address, etc.

D. Recognition of Words Necessary to Function in Everyday Living.

1. Importance for safety, etc.

a. Drill with traffic signs correlated with words, e.g., Stop – Go. Teacher can make traffic light from colored construction paper and play games such as,

"Red Light says Stop"
"Green Light says Go"

Children walking on a field trip practice crossing at the proper color light.

Line up room using white masking tape. Have children pretend to be crossing guards using colored lights on sticks; other children can pretend to cross at right light, etc.

Draw pictures with children, cars, and trucks, stopping or going at different colored lights.

b. Talk by the school crossing guard and a policeman.

Have them tell about the importance of watching the light for crossing.

Introduce them as community helpers – people to go to for help, etc.

Get safety films for reinforcement of stop and go lights. (red/green)

c. Develop word cards for words that are important for the child's safety such as:

Boys room
Girls room — for bathroom
In – out
Exit
Danger
Bus stop

E. Printing Skills

1. Develop fine hand muscle coordination.

a. Plan for the children to experiment with finger paints, clay, bead stringing, or any other activity which develops manual dexterity.

b. Children should have opportunity to develop muscle control by holding and scribbling with large pencils, large crayons, and painting at the easel with long-handled brushes for good wrist and arm movement.

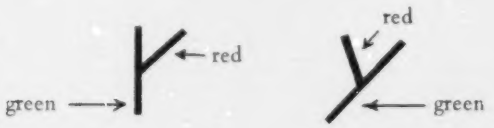
c. Begin name printing skills.

Child should be familiar with name. (Refer to sight and word recognition program). Begin name printing by having child trace over name with crayon.

As the child traces, teacher should give oral direction for the letter to guide the child.

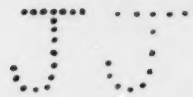
Example: m – straight line down, up and around, up and around and down straight. j – straight line down, put hook on line.

For additional practice, letters could be printed in different colors to aid the child at stop points and to begin new movements. (Also reinforce the stop/go – red/green concept.)



d. As the child progresses in tracing name, letters should be large, then in dots gradually more spaced so the child develops (eye/hand coordination, visual memory) and eventually to print letters with missing parts. For example,

1.

2. 

3.

e. Teacher has children bring in boxes – which she/he fills with sand and has the child practice using his or her finger to trace the letter that is being worked on. Another sense is brought in – the sense of feeling. The teacher gives verbal commands of letter movement.

f. Teacher cuts out letters from sand paper, felt, cloth, etc. Have child feel, see, and trace letter. Arrange letters for his/her name; trace letters. Make letters/numbers from different textures. Stimulate feel as well as giving oral communication. (Some of these are commercially produced.)

A. Language Development

1. Develop an increased speaking vocabulary.

a. Continue on daily routine tasks such as:

flag saluting
chores in the classroom

The teacher has pictures of daily jobs with the word printed next to the picture. Each child's name is on the board next to a specific assignment, e.g.,

John sweeping

The teacher follows this assignment with verbal commands.

One must remember that it is important to establish a daily schedule: try not to change this procedure as these children need a great deal of drill.

b. Use of visual clues – cards with pictures of active situations. Children should respond to questions such as, "What is the man doing?", "What color is the can?", "What is the child wearing?", etc. These picture cards can be purchased through commercial firms or made by cutting out action pictures in magazines and pasting them on cardboard.

c. Use picture cards of a story. The teacher will read the story for the children; this may mean several times. Then assignments are made, and the children role play the story. The story has to be simple and the verbalization that is used must be simple. Two- or three-word responses in the beginning.

2. Develop concepts and meanings.

a. Use of picture cards, e.g.,

House hold cards

Picture of an entire room, (kitchen, bedrooms, etc.). Also, pictures of the things that might go into these rooms. Be specific; have pictures that will go in only one room initially. The class uses the pictures of the objects that fit in a particular room; then they talk about it, e.g., kitchen chair – color, size, what is it used for, etc.

It is important to remember that, with each card, the purpose of using these exercises is for the development of concepts plus verbalization.

b. Have child be able to name body parts.

(1) Cut out pictures of face, hands, eyes, etc.

(2) Draw people.

(3) Play games such as "Simon Says".

(4) Have children verbalize about body parts.

(5) With this exercise time can usually be put aside for the teacher to inspect teeth, hands, hair, face, etc.

Felt boards and dolls (male and female) may be utilized to instruct body parts.

3. Use of the telephones

a. Use the telephone to stimulate speech and language. Have children use the telephone to build a vocabulary such as – Hello, good-by, Who is this? Develop role playing situations. (The Bell Telephone Systems will provide telephones for this purpose.)

At this time it is also important for the teacher to develop the use of the telephone for emergency telephone calls. Role play this with children, e.g., give your name, address, and the particular emergency. Also learn how to call the operator and request assistance.

4. Learn action words and phrases.

a. The teacher should use and initiate action situations and action words such as running, walking, jumping, clapping, and stamping. Verbalize these words. Use pictures from magazines showing action words. Have children bring in pictures from home showing action words, etc.

Now use ego-centered pronouns for actions words. I am running. See me run. This only comes after there is a good, concrete understanding of what action words are.

Give commands using action words, e.g., John run, Mary sit, Peter stand, Harry jump. Develop games using these kinds of commands.

5. Use the weather to stimulate language.

a. Develop as part of a daily routine. Have the children sit around and discuss the weather for the day. Ask questions about the weather. What kind of day is it? Cold, hot, rainy etc. What do we wear in the snow? Use this also to review body parts and where we wear our hats, gloves, etc. Drill on words such as rain, snow, hot, etc.

B. Sight Word Recognition

1. Name cards

a. Teacher should label as many objects in the room as possible so that you expose the child visually with as much stimuli as possible. Words such as these could be used: dish, chair, window, exit, blackboard, etc.

Also during the school day try to use these words as much as possible. Refer to them. Send children to the board, etc.

2. Communication skills

Teacher should develop a list of the words that are necessary to function in everyday living. These word cards should be on the appropriate object whenever possible.

(1) Teacher has class see and say the words.

(2) Games can be developed using these words.

(3) Class should trace the words using such sensory stimuli as clay, sand, felt, sandpaper, etc.

(4) Possible words such as danger, poison, walk, entrance, exit, stair, police, firebox, etc.

(5) Take class on a walk. See how many words they can distinguish.

(6) Have class work on project using the names – copying, saying, or coloring the words.

Some examples are:
Copying – using sand box (cigar box or shoe box with about ½" of sand in bottom); saying – repeating the word; and coloring the word – fill in lines.

(7) Prepare large cards with the safety signs that are presently being used by the State.

(a) Show the cards.

(b) Discuss the cards.

(c) Have mimeograph pictures of the safety signs to give to the class for coloring and to bring home.

(d) Role play with the large cards depicting some safety sign. Have class think about the signs.

(e) Develop games using these signs, e.g., pretend that some of the class are cars, some pedestrians, etc. Act out what the sign says.

3. Recognizing objects in the room

   a. Children will name objects in the room. Signs will be made for these objects such as desk, chair, boys rooms, door, etc.

   b. Teacher will say an object: child will go over and touch object. Then child will say an object, and choose another classmate to go over and touch object. Continue this until all labeled objects are mentioned.

      Remember, start off with a few labeled objects; increase this when there is a fair proficiency in recognizing the objects. Recognizing objects, as well as any material for the trainable, has to be taught, reinforced, reinforced, and reinforced.

   c. Remove labels from objects after a sufficient time has passed so that the children know what the objects mean. Pass out some of the labels; have children, one at a time, replace the labels on the correct objects. If a mistake is made, stop the activity; bring the classes' attention to the mistake, and correct it.

4. Environmental and community signs

   a. Take class on a walking trip through the neighborhood. Look for signs such as stop, keep off beware of dog, go, wait, danger, men working, etc.

   b. Make up word cards after trip; these signs are discussed. Teacher explains what the signs mean. For those who are limited, use configuration patterns of the letters in the sign (only the most important) to teach its recognition and the concept of the sign.

5. Word charts (experience charts)

   a. Teacher develops one or two new words each day, using the experiences the children have had in the aforementioned activities.

   b. Have children bring their new words (one or two) home. Parents are instructed to cut out pictures or to help their children draw and color pictures depicting their new words.

C. Printing Skills

1. Reinforce name printing (these activities must be reviewed each day.)

   a. Introduce surname.

      Begin printing last name.

b. Develop tracing skills

(1) Use clay, sandpaper, felt, sand box, etc. for this activity.

(2) Develop mimeograph master to reproduce assignments

Use dots and broken lines in the initial tracing activities; bring the dots or lines closer together (one moves from gross motor movement to fine motor movement).

D. Many of these activities are needed for the Phase II Plan of a shelter employment program such as recognizing your name on a time card. Labeling will be one of the job stations such as printing and labeling signs. This is a reinforcement of words, being able to recognize letters, and setting them up on a printing or engraving sign.

A. Language Development

1. Continue on daily routine task.

2. Introduce chores and review pictures of jobs. This may be done by having a student pick out a picture of the job he is assigned for that particular day. Then he or she discusses that particular job. Example – type of tools needed for job, where to get the materials, what to do with the tools, etc.

3. Use of visual clues

   a. Show pictures with specific tools. Have students tell about the tool and how it is used. If student cannot verbalize, have him or her use gestures regarding the tool.

   b. Have various tools to match the pictures. Give the student the opportunity to handle the tool. Show and tell how to use the tool, what it is for, how to hold it, etc.

4. Role playing

   Set up a grocery store at one end of the room. Have play items, empty boxes, or cans on the counter and on the shelves behind the counter. One student will be the grocery clerk, and the others will be the customers. Role play various situations. Have the "customer" ask for various items, etc.

   The Bell Telephone Company has telephones with signals attached for the "ring" and "busy." This is an excellent opportunity for the children to role play. Set up situations where a child calls up an employer for a job, calls the operator for information, is the only one home and must take a verbal message, gets busy signal and must try again, calls employer for a sick day, and makes an emergency call to police or fire. This type of activity reinforces the numbers when dialing, increases auditory memory span when remembering a number or taking a message, and increases attention span when remembering (in the emergency call) his own name, address, and telephone number.

   Develop a period of the day when there is a free-flow conversation such as "What did you have for breakfast? What color pants do you have on? What color shirt does John Jones have on?, etc." In each activity, there is a constant repetition process and reinforcement process taking place.

B. Sight Word Recognition

1. Labeling task -- large cards with names of tools. Have student pick out card. Example: Hammer. Then have child go over and pick up appropriate tool.

2. Recognize their name on the work board and recognition of the specific work station that the student will go to for that day.

3. It is at this time that the teacher refers to the special word chart on the board. On this board, there are those words that the child must have a knowledge of such as stop, go, poison, danger, entrance, exit, men, women, etc. Again, constant repetition and reinforcement are needed.

   Have a member of the class go around the room and point to various labeled objects such as chair, table, etc. Then call on one of the other class members to name the object. Change the roles as often as possible.

   Have name and address cards on a bulletin board. Have the students go over and pick out the correct name and address. Have the teacher take all of the cards and place them in his or her lap. Have the class gather around the teacher in a semicircle. The teacher then picks out a card with one of the children's name and address. Have the child respond when he or she sees his or her own name and address.

   Review the alphabet cards with the children. Also, review cards with familiar pictures and a large letter in the right side of the card. Example: door, picture of door, and a large "D" on the side of the card.

   Develop pictures of the child's environment. Have these cards with the pictures glued on using phrases or individual words such as railroad crossing, stop sign, bus stop, taxi stand, etc. These exercises increase the child's ability to memorize and feed back information.

C. Printing Skills

1. Review the printing skills. Have the class copy their names from the printed sample of their name.

2. Work with paper where the paper has large spaces between the lines. After the child has met with success printing within the lines, have him or her print on lined paper with smaller spaces. This exercise is very good for visual perceptual training, and eye-hand coordination.

   This type of activity should be completed for the student's name, address, and telephone number. One must remember that in any of these exercises, the teacher walks around the room checking on each student, correcting mistakes, etc. Conversation about the child's name and address could also be utilized at this point.

A. Language Development – increase the speaking vocabulary as much as possible.

1. In this particular phase, the emphasis on language must be on conversation. This conversation deals with the student and his everyday life. It is important for the student to be able to carry on some type of conversation with his or her peers. It is important for the trainable to be able to function during the day, both in work and after work. They need guidance in what topics are of interest. Provide some of these topics for students such as:

   a. What did you work on yesterday? today?

   b. Where did you go last night?

   c. What did you watch on television last night?

   Sit around in a semicircle, and discuss these events. Discuss any event that they might be interested in, or that has taken place in the news. Try to help them stimulate themselves in this free conversation. The trainable student has to be taught how to use free time. This free time has to be coordinated for the student. It is important that they have the ability to communicate.

HANDWRITING

1. Purposes and objectives

   a. Training in eye-hand coordination.

   b. Skill in visual discrimination and copying of shapes, sizes, direction of stroke, relationships, and sequence.

   c. A mature and socially acceptable way of giving continued practice in the above skills to older children.

   d. The logical culmination of much of the general readiness training.

   e. Teaching a skill that is within the realm of achievement for many (a child with a 4½ year old mentality can copy manuscript).

   f. Providing an aid to the learning of whatever labels and sight words the child may be able to be taught.

   g. Giving a possible leisure time activity.

   h. Develop unjoined letters, fewer stroke patterns, and a resemblance to book-print; manuscript writing is preferred over cursive for the trainable.

2. Suggested activities in handwriting

   a. Train the child in observing and imitating. "Do what I do" with a crayon and paper.

   b. Practice simple strokes and basic strokes.

   c. Use of verbal clues – go round, big stroke, little stroke, over, curly tail, hump, down, etc.

   d. Use color clues – make each letter or stroke in a different color. Crayons are easier to use in copying and are particularly recommended for overcoming a lack of perseverence and inhibition in brain-injured children.

   e. Tracing.

   f. Practice with teacher guiding student's hand.

   g. Write in clay (clay gives resistance to help develop control).

   h. Practice marking within spaces.

   i. Practice in combining strokes.

   j. Write letters of alphabet; begin with those in the child's own name.

   k. Trace own name (not in the air). Writing on blackboard may be useful, but it must usually be taught as a special skill.

   l. Copy own name.

   m. Try and write names from memory.

   n. Make greeting cards.

   o. Copy thank you notes.

3. Suggested materials for handwriting

   a. Large crayons.
   b. Beginner jumbo pencils.
   c. Crayon pencil wrapped in wad of clay or cloth for easy grasping.
   d. Clipboards for spastics and others if holding paper is a problem.
   e. Reused letters with sensory appeal to feel and trace.
   f. Letters formed of yarn, rope, sticks, and clay. The children can help make these.
   g. Large wooden or plastic letters.
   h. Letter supplies – letter cut into 2 or 3 pieces, color coded.
   i. Envelopes of letters to put in order, match to word, card, name, etc.
   j. Letter shapes done in dots or paths to trace.
   k. Tracing paper and tracing cards.
   l. Clay pans (shallow cake pans, cookie sheets, with plasticeve pressed into thicknesses of 3/8" or 1/2" thick.

The development of General Information Awareness cannot be dissected in terms of levels: primary, intermediate, secondary, or post secondary because of the different rates of development of trainable children even in the gross grouping. Other general information awareness, one aspect with which teachers must concern themselves, is the youngster's development or concept of their own bodies. Youngsters have to have experiences which help them understand that in a mirror they see their eyes, ears, nose, mouth, and hair and that these can be duplicated in pictures and even in art forms. Use of the mirror, use of mannequins, use of other assembly devices, silver works, wall length mirrors, etc., will develop these concepts. However, teachers must determine other activities which are possible such as the use of songs, songs combined with dances such as hokey pokey, etc. which in a way can be used as a measure of the learning that is taking place, at least in terms of somebody's parts in the concept of leftness and rightness. The Peabody language development kit will assist the teacher in development of these concepts.

At the secondary level, it would seem possible for youngsters to cut out and assemble parts of the body. Another dimension of general information concerns the use of or familiarity with redness and greenness in terms of traffic signals. Although we don't think of trainables as being capable of learning to read, they should have developed a condition reflex to such things as "walk" and "don't walk" in connection with colors.

Another dimension of general information awareness is a concern for suitability of clothing. Opportunities for youngsters to identify inappropriate clothing must be provided at all levels. An example of this occurs in warm weather – putting a heavy coat on a youngster and having him become aware of its inappropriateness. The opposite kind of activity is also something to be engaged in by the teacher as motor dexterity is developed by the youngsters. The manipulation of buttons, zippers, strings, etc. must be an object of a teacher's concern.

General awareness must also include aspects of personal hygiene and the selection of proper foods.

Another area of concern in this general area is concern for the environment in terms of the youngster's functioning in it. Youngsters must be aware of the danger of creeks and streams. One of the primary concerns in the general information awareness has to be the kind of information that promotes safety.

The social skills which must be developed among trainable children to enhance their possibility of entering the world of work includes sharing in activity such as doing the hokey pokey. Other activities which are conducive to the desired development are activities in which youngsters share objects, learn to wait their turn, such as show and tell, etc. Other dimensions of the social skills which should be developed are training youngsters to say pardon me, excuse me, good evening, good morning, etc. Ultimately, the social skill process climaxes at the assembly line where youngsters must be aware that they have a place on the line, boundaries in which to work, and the activities of others to respect.

A. Experiencing numbers

First stages in experiencing numbers are some basic concepts such as:

1. Size – big/small. The teacher would use concrete objects to demonstrate this concept.

   Some activities could be holding a big nail and a small nail. Have the children take cards with big and small written on them; then hold the card next to the correct size nail.

   Have the children handle the different size nails. Pass out some big nails, then some small nails. Have all the children with the big nails go to the right corner, and all the children with the small nails go to the left corner. This type of activity reinforces the right/left concept and big and small concept.

   Set up sequential order for the children to participate. First, use only two objects of different sizes; increase the number of objects in the sequential pattern later. After successful attempts try to make the tasks somewhat more difficult.

2. Tall/short. This is another concept that has to be taught with concrete objects. The teacher should use general pictures of objects within the child's experience, such as pictures of the family; which is taller/shorter, items, such as homes; which is larger, which is smaller, such as cars, trees, etc.

   Have children hold up the appropriate card after the teacher has given the measurement (tall/short).

3. Another concept that should be developed is the more than, less than concept.

   (This is important in Phase IV where you can relate this to a Vocational Program.)

   This has to be a concrete lesson. Children must be able to handle, touch, etc. the object used to explain the lesson.

   Some sample items that can be used are different size glasses, bottles, etc. with different quantities of water in them. Which has more or which has less? The teacher can also use different piles of objects such as money, chips, etc. Which has more, which has less? (This concept will be related to an on-the-job training program.)

The teacher could use duplicating masters for the children to color, mark in, etc. These duplicating materials should also be used to test what the child knows. For example, the children have pictures of large/small objects on the paper, etc. The teacher has the same objects in front of the room. Example: Large bottles, small bottles on the paper. The teacher picks up a large bottle in front of the class: the children will then put an "X" on the large bottle. Reverse the process for the small bottle. This task also reinforces the concept of same/different with large/small, etc.

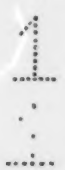
4. Teach the concept of 1 – 10.

One of the goals in this program is to have the children in Phase I of the program learn the concept of 1 – 10. Teach the child how to distinguish between the actual number, use of visual material, flash cards with the actual number written on it, etc.

Have the children count using the numbers. Role play with the numbers; make paper bags with the number written on the bag. Cut out holes for the head. "I am number 1, I belong here, before number 2." etc. Mix up the children, meaning the numbers. Then have another child place them in the proper order by physically moving the children.

Use duplicated materials; have the child write the numbers.

Example:



then increase

the task to

This type of activity helps reinforce direction, and also the concept of seeing the number visually.

B. Money

The concept of money should also be discussed at this time.

1. The teacher should acquaint the child with the handling of money, first with pennies, then continue with the concepts as far as a quarter. This can be done with piles of money: Which pile is larger? How does one pile of 10 pennies equal 1 dime, etc?

Color differences and size differences can also be discussed.

Make flannel cutouts of pennies; have child use the flannel board for the money. Develop games using pennies.

Example: Pass around a penny; have music playing while this is being done. Stop the music; the person holding the penny goes into the center of the circle, gives penny to another child, the music starts, and the penny starts to be passed around again.

Use duplicated material, and have children color in the pennies. Draw a circle and put 1¢ in the center, etc.

Role playing situations can be developed, where the child goes to a play store and buys objects for a penny. Actually use pennies, so that the child gets the idea of handling the money and using it to buy. Try to develop a bank account system where he learns to save money as well as spending it. Make up a book with the child's name on it. Only pennies can be saved in the initial stage.

Basically, the teacher should have the children see, touch, handle, and use the money that the particular lesson is based upon.

C. Time

Approach the time concept with generalizations such as morning, afternoon, evening.

1. When teaching the concept of time, relate it to things that are being done at certain times during the day, such as eating breakfast in the morning, eating lunch in the afternoon, eating dinner in the evening, going to bed at night, getting up in the morning to go to school, etc.

   After these concepts have been developed, then proceed to relate certain activities with the actual time. Use general time concepts, 8:00, 12:00, 5:00, etc. Starting school at 8:00 in the morning, or eating breakfast at 8:00 in the morning, eating lunch at 12:00, etc. These times can vary, according to the individual, but general concepts are important.

   The purpose is to relate times of the day to special events, making the child aware of doing things at different times.

   The clock may be introduced at this stage, but not in too much detail.

A. Experiencing Numbers

1. Reinforce the concept taught in Phase I such as big/small, tall/short, more/less, etc. Review the material using different concrete objects to reinforce the concept. Start to introduce tools, screws, nuts, bolts, and nails. Example: which is the larger hammer, which is the smaller screwdriver, etc.

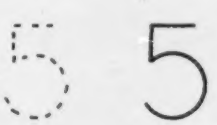
2. At this point, the teacher also could introduce the concept of sorting. The teacher shows a small bolt, then a large bolt; let the children see the difference (paste on cardboard); let the children hold the different size bolts. Mix up 10 bolts of the two different sizes and give to each child; then sort out according to size, and put them in piles. (This activity may be repeated numerous times before the students feel comfortable with it. The items in the task may be varied. Always keep in mind that the items in the task should be related to some type of vocational outcome. As soon as the task has been mastered, increase the number of items to be sorted and try to introduce another size into the situation. Remember, this additional size may not be appropriate to all of the children. A judgement must be made on who can handle this new situation.

   This type of lesson can vary from large/small, tall/short, etc. Its purpose is to acquaint the student with difference through the use of as many senses as possible. The teacher must evaluate different levels of success from the students. At this point, start to group the students according to ability, increasing or decreasing the complexity of the task accordingly.

3. Teach the concept of numbers from 10 – 25. Review the concept of numbers from 1 – 10. Test by providing tasks for the children to compile using numbers from 1 – 10.

   Use the flannel board-pictures of 1 – 10 objects grouped. Have the student place the correct number under the group. Example: with a group of 5 buttons, the child puts the number 5 under them, etc.

   Reinforce the child's ability to print the number, e.g.



Use sand to print in; this reinforces the tactile approach.

Introduce the 10 – 25 concept. This can be done by counting out from a pile of objects, like nuts, bolts, screws, etc. The problem in counting should be related to specific vocational tasks. For example, padding how many sheets of paper in a pad, how many plastic knifes, forks, and spoons in a sealed package, etc.

B. Money

1. Show the relation of pennies to nickels and nickels to dimes. Give each child a quantity of pennies in piles of 5 each. Exchange the pile of pennies for a nickel. This activity could be expanded to nickels to dimes, and dimes and nickels to quarters. Again the main thought is to repeat the lesson as often as necessary (reinforcement). This concept of money is basically taught at these levels to prepare the trainable to function in a sheltered workshop where they get paid for their time.

C. Time

1. Relate incidents of daily living to a time and a clock. By using a clock with moveable hands, the teacher can direct activities where children show "What the hands on a clock mean when we eat lunch." Then tell the children that it is 12:00 (noon). Other incidents of the day could be shown such as 8:00 a.m. This is the time we get up. This concept is expanded on each level.

2. Start to teach the concept of an hour. Using a play clock, the teacher will show the children the hour hand; have the children tell what hour it is by moving to another number. At each hour, ask a child to tell the class what time it is.

3. Begin teaching the half-hour. By using a clock, follow the same procedure as above. Reinforce by asking a child what time it is every half-hour. Give each student an opportunity to move the clock.

4. Use a role-playing situation such as a bus pickup. One child could be the driver picking up several children at specified times. Arrange times on a clock with moveable hands.

Phase III **Secondary or Advanced**

A. Experiencing Numbers

1. Reinforce the concepts of small/tall, more/less, etc.

2. Reinforce the concept of sorting; increase the type of sorting, making it more difficult by adding more than two sizes. Choose the sizes you want sorted. Introduce three sizes of bolts. Then prepare the children by giving each a pile of two sizes, mixed together. The next phase is to introduce a third and possibly a fourth size.

   Add another dimension to this particular task; start to add the concept of sorting with a time element. Have the children sort first without any time element (teacher times the child without the child's knowledge). Then, using this time as a reference point, try to increase the proficiency of the act of sorting. The teacher urges the student in this function by constant positive reinforcement – much praise.

3. In this phase of the program, cooking, keeping a house, and all that this involves is introduced.

   The following room sections are needed:

   a. Living
   b. Dining room/kitchen eating area
   c. Bedroom
   d. Kitchen – stove, refrigerator, washer, dryer

   All of the students are taught to maintain a house. This concept is important because it makes each child an asset rather than a liability in the home. It provides each student with an opportunity to use, clean, operate, and maintain a house.

   Basically, cleanliness is taught. This includes how to dust, vacuum, and arrange furniture. Keeping a kitchen clean, how to cook and prepare meals, washing and drying dishes, and taking care of the laundry are also included.

   Students should get experience shopping at the various stores in the area. This could be completed after the menus have been developed.

   Grocery store work – Using grocery items, students will be given grocery lists with varied numbers of items (6, 8, 12, etc.). They must read the first item, obtain it from the store, and check the item. This process is repeated until the student has the number of items corresponding to the number on the list.

B. Money

Some suggested activities for the use of money denominations are:

1. The teacher will give each student small stacks of money. One student may have all pennies, the next dimes, the next nickels, etc. Still another student may have quarters and pennies. On the board, the teacher will write a number such as 57¢. Each student must take 57¢ from the pile for the teacher. The amount of money and denominations will be varied periodically. In this way, students become familiar with functional use of quarters, dimes, nickels, pennies, etc. Again, this activity is used to develop the concept of money.

2. Students will not bring lunch to school. They will bring lunch money. They must visit the cafeteria, purchase, and pay for their own lunch. Upon return to class, there will be a followup discussion with the teacher.

3. Take the class on a trip to the local supermarket. Each student will be given an amount of money with which to purchase a given item. Some will have the required amount of money; others will have change. The difficulty will depend on the students' ability to comprehend.

4. Buying and selling – Use smaller desirable items on shelves in a corner of the class. Use real money. Have the items priced. Students will be given varied amounts of money. Each will in turn enter the "store" to buy something. In this way, they are learning about actual transactions. They will learn some items are too expensive. With still other items, they can expect change back.

C. Time

Suggested activities are:

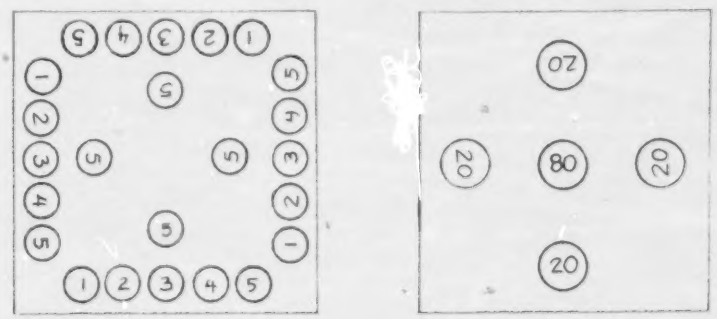
1. Time schedule – Each morning set up a time schedule on the blackboard. Arrange for key events of the day to be done at spaced intervals. Stress times as they approach. This will increase students' working knowledge of time and sequence.

2. Reinforcement – At this stage, the children will be working more with usage of time than learning to tell time. Throughout the school day, drill by asking different children to tell you the time.

Phase IV **Post Secondary**

A. Experiencing Numbers

1. Review the concept of sorting, size, shape, big, small, etc.
2. Continue to reinforce the time element in this phase.
3. Develop simulated work projects where an order has to be filled. Example: 10 bags of large bolts, 10 bags of small bolts. (Teacher prepares a time study based on the students ability). The teacher then sets up the problem. Example: In ten minutes, 5 bags of large bolts have to be completed, etc., and in another 10 minutes, 5 bags of small bolts must be finished.
4. The student knows how to recognize his name on the time card, and punches in on the appropriate lines. It is at this level that the teacher introduces the concept of punching out if satisfactory work has not been completed. For those who do not recognize their name, a number code can be developed: this can be utilized for the time card (John Jones #1).
5. The teacher sets up four places at a table in the classroom. In front of each place, there are five cards, numbered 1 – 5. On the top of these numbered cards, there is a sixth card, numbered 5. The students place a piece of paper covering each numbered card 1 – 5; when all of the cards marked 1 – 5 are covered, the student gathers up the papers and puts them on the sixth card, numbered 5. Another child picks up all of these sheets and places them on a second table where there are four numbered cards, numbered 20. When the four cards numbered 20 are filled, this completes the 80 sheets for the pad. The operation then goes on to the glueing of the pads.



A few processes have taken place in this particular exercise. The first process is a reinforcement of numbers. Even those students, who can't read or learn the numbers, can work with a specific project without having any knowledge of the numbers. The repetition of the task also reinforces a review of numbers and an eye-hand coordination activity.

B. Money and Use of Money

1. It is at this point in the curriculum that the student uses what he has been taught. Each week the student will be given a pay envelope with his weekly earnings enclosed. This pay will vary in denomination. (Use play money first, then real money) A store can be set up for the workers to buy the things that they made, or to buy other materials that have been stocked in the store. A sheltered workshop banking system may also be developed. It is at this point that the teacher or supervisor develops the concept of budgeting (saving/spending). The workers get paid according to what they produce.

C. Time

1. This area is related to the time clock, punching in and punching out. Put to use what they have been taught for the last 10 to 15 years. They must know how much time they have worked, what rate of pay, etc. Handle this area in very concrete terms.

An exercise conducive to perceptive development involves youngsters walking from a row of seats in one end of the room to one of two points in the other end of the room.

Point "A" is designated as a screwdriver terminal identified by large pictures of screwdrivers. Point "B" is identified as point screw and is designated as a large picture of a screw.

Initially each child in the activity is handed a screwdriver and is directed to walk to point screwdriver and deposit screwdriver in the designated box. This is repeated for each child 10 to 15 times.

Secondarily, each child in the activity is given a screw and is directed to walk to point screw and deposit it in a designated box. This is repeated for each child 10 to 15 times, more or less as the teacher might deem necessary. Concomitantly, language development takes place by having the child repeat the appropriate word screwdriver or screw with each walk.

The next phase of language development involves an attempt to conceptualize two concepts, sameness and difference. As youngsters are involved in moving the screwdriver from the base line in the back of the classroom to the box designated screwdriver, the teacher must constantly verbalize for and with the children that all screwdrivers delivered from point "B" (base line) to point "D" (depository), regardless of size, have sameness; they are all screwdrivers.

As youngsters are involved in moving screws from the base line in the back of the classroom to the box designated screws, the teacher must constantly verbalize for and with the children that all screws delivered from point "B" (base line) to point "D" (depository), regardless of size, have sameness; they are all screws.

At the secondary level, the perception of sameness and difference must be heightened to the point that youngsters are aware that some objects, mainly screws and screwdrivers, possess attributes of sameness and difference at the same time. Initially, the teacher will have youngsters work with screwdrivers of different sizes, constantly repeating "Regardless of size, they are all screwdrivers." Concomitantly, the teacher must raise the level of awareness so that the differences among the screwdrivers are by virute of size. To develop this awareness, have youngsters separate the screwdrivers according to size.

Initially, the teacher will have youngsters work with screws of different sizes. Constantly repeat, "Regardless of size, they are all screws." Concomitantly, the teacher must raise the level of awareness so that the difference between the screws are by virtue of size. To develop this awareness, have youngsters separate the screws according to size.

Initially, the teacher will have youngsters work with screwdrivers of different colors. Constantly repeat, "Regardless of color, they are all screwdrivers." Concomitantly, the teacher must raise the level of awareness so that the differences among the screwdrivers are by virtue of color. To develop this awareness, have youngsters separate the screwdrivers according to color.

Initially, the teacher will have youngsters work with screws of different color. Constantly repeat, "Regardless of color, they are all screws." Concomitantly, the teacher must raise the level of awareness so that the differences among the screws are by virtue of color. To develop this awareness, have youngsters separate the screws according to color.

Secondary Level – Vocabulary Development

Teach names of colors and have children speak in phrases, such as "the yellow screwdriver", and in more advanced stages, "This is the yellow screwdriver". "Where is the yellow screwdriver?", and "I put it in the teachers box".

Post Secondary Level

The conceptual development of similarities and differences and the coexistence is brought to practical fruition when the youngster is provided with opportunities to select the proper screwdriver for any one of a variety of screws.

An ancillary activity to the above paragraph is to demonstrate the more sophisticated screwdrivers that are used in the world of work. These are the motor-driven and the manual push-pull types. Participation in this phase of the program will be determined by the teacher in terms of the general development of the students, the development of their manual dexterity, and the development of their safety orientation.

Summary

Perceptual training at the primary level involves two activities. The first activity is walking from "B" to "D" along the shortest possible route, a straight line. It also involves developing in the youngsters an awareness that the screwdriver being carried from "B" to "D" is visually represented by the large picture of the screwdriver affixed to the depository box.

At the intermediate level, visual perceptual training should concentrate on the development of the awareness of the difference between a screwdriver and a screw.

At the secondary level, visual perceptual training involves recognition of differences between screwdrivers and screws, differences among sizes of screwdrivers, different sizes of screws, and the differences among colors as they are found in many screws and screwdrivers.

Visual perceptual training at the post secondary level develops an awareness of the differences between screwdrivers (traditional and phillips) and the differences among screwdrivers (width of the blade).

1. regular
2. phillips
3. push-pull (manual)
4. motor-driven

Auditory perceptual training at the primary level involves repeated activities to distinguish between screws and screwdrivers in terms of an individual response auditory stimulation. Pictures and models of automobiles added to the visual stimulants of the screws and screwdrivers will facilitate the teacher using phrases such as automobile driver, car driver, and bus driver as opposed to screwdriver in developing auditory discrimination.

At the secondary level, in response to auditory stimuli, youngsters will be asked to manipulate objects such as screws, screwdrivers, bus driver, the colors as suggested on the preceding page, and the qualitative stimuli of largeness and smallness.

At the post secondary level, language ability and auditory discrimination are best merged into a single activity by developing one on one situations between students. Students take turns in practicing language development by giving commands to move various color and size screws, screwdrivers, toy buses, and toy autos.

Gross and fine motor skill development during all phases – primary, intermediate, secondary, and post secondary – are observed by the alert teacher who will repeat whatever activities are suggested above as often as necessary to insure a proper degree of motor skill development.

The tactile dimension of the desired perceptual training is not treated separately in this guide since appropriate activities are obviously woven into the suggested activities for visual, auditory, and both gross and fine motor development.

COOPERATIVE EDUCATION

The cooperative phase of this program is important. The entire thrust of this program is to educate trainable youngsters so that they can lead productive lives after their public education. At the present time, most of these youngsters return to their homes after the mandated age; and many of them live out their lives as a burden to others. The efforts of this entire program should result in the following outcomes for trainable youngsters:

1. They will be able to perform many of the day-to-day tasks normally associated with running a household, such as cooking, house cleaning, and marketing.
2. An increased number will be able to function in a sheltered workshop environment.
3. A small but increased number will be able to hold jobs of a very selected nature in the private business sector.

The latter two outcomes involve the area in which the cooperative education coordinator must function. He or she must participate in the decision as to which youngsters will participate in sheltered workshops and private business. Ideally, the role of the cooperative education coordinator will not stop when the youngster officially leaves the school community. This program should remain in contact with the youngsters who have entered the sheltered workshop for the purpose of receiving continuous feedback relative to the effectiveness of all phases of the program. It can safely be assumed that the kinds of work done in a sheltered workshop and the techniques required of the youngsters will vary to the same degree as private industry. The only practical way to maintain this contact is through the coordinator.

For this program to reach full fruition, it would be necessary to substantially increase the number of sheltered workshops. Since there are sufficient state laws regulating the establishment and regulation of sheltered workshops, the role of the coordinator is limited to providing the feedback to the program which will assure that the youngsters are being taught skills that will enhance their opportunities to enter sheltered workshops.

The role of the cooperative education coordinator with respect to finding employment for trainable youngsters in the private employment sector is of utmost importance. Consequently, the selection of the coordinator must be done very carefully. The coordinator should be certified as a cooperative industrial coordinator because of the possible variety of occupations in which he or she will place youngsters.

Ideally, the coordinator will spend part of his day as a participant in the trainable workshop. He should assist in setting up various work stations each day and help the trainable teacher to learn some of the hands-on techniques. The nature of the trainable workshop requires it to have a great deal of logistical support. The cooperative industrial coordinator, with the various business and industrial contacts and with his or her training

and teaching experience in the industrial field, is usually able to spend budgeted funds wisely and to secure varying amounts of tools, materials, and other supplies from the private business sector. The coordinator can be especially useful in securing jobs for the assembly line operation from industry or within the school system. Youngsters may or may not be compensated for these jobs. The coordinator can also assume the responsibility for finding the market for the products produced in the trainable workshop. In a school system which has Distributive Education as part of the high school program, an excellent relationship can be established. A branch of the high school store can be established in the trainable workshop; it can be run by an advanced student from the high school Distributive Education program. Articles produced in the workshop can be sold in the workshop store and also in the high school store. Profits from the items sold in the high school store can be used by the trainable youngsters as a credit toward commercial items sold in the high school store.

It should be obvious from the foregoing that the trainable workshop ought to be a place of activity, industry, and commerce in which the coordinator must be an integral part. The duties in the workshop should make him or her eminently qualified to determine, along with the special education teachers, which youngsters are the most qualified to enter the private business sector. The possible sites must be selected very carefully with special attention paid to the following:

1. Transportation – How would the trainable youngster get to work?
2. Is the proposed job a relatively safe one?
3. Will the youngster receive proper supervision?
4. Is the pay commensurate with the work to be performed?
5. Any question regarding the pay scales can be answered by the Wage and Hour Bureau, New Jersey Department of Labor and Industry or Wage and Hour, Public Contracts Division, U.S. Department of Labor.
6. The employer must agree to periodic visits by the coordinator.
7. All local, state, and federal labor laws must be observed. The standards that are highest at any of these governmental levels are the ones that must be met.

The cooperative program can play a significant role in helping trainable youngsters contribute to society in a way that will make them less of a burden; they will be able to lead more meaningful lives.

EMPLOYMENT ORIENTATION

Employment Orientation is a prevocational program which gives the trainable youngster the opportunity to use the skills learned in the other phases. This program will not only teach these youngsters to use their skills in actual or simulated world-of-work situations, but it will be used to screen each youngster in terms of mechanical ability, social ability, and preference in terms of readiness and ability to function in a sheltered workshop environment.

The purposes and goals of this program can be listed as follows:

1. To provide the trainable student with a chance to experience success.
2. To develop the quality of acceptance of individual responsibility in a student when he or she works as a member of a group.
3. To develop speed, accuracy, and endurance.
4. To use a variety of group work tasks as a screening device to determine interests, aptitudes, and abilities.
5. To provide a followup of meaningful basic training when the need has been identified through the screening process.
6. To enable successful students to advance to placement in a sheltered workshop upon the termination of the school.
7. To properly care and store tools and equipment.
8. To be able to follow rules and regulations.

Employment Orientation is divided into two parts – simulated work and basic skill training. The simulated work phase is further divided into assembly line type operations and other group work situations. The basic skill training phase should, ideally, provide youngsters with opportunities to work at manipulative tasks at a level at which they can experience success. Gradually it should become more demanding as the students progress through this phase until the tasks are very much like sheltered workshop tasks.

It must be remembered that trainable youngsters share the same general kinds of preferences for work as people of average intelligence. The simulated work phase requires a high level of social skills because of the independent nature of the work. Many trainable youngsters will never be able to work in a situation like this, but they may be very productive in an activity which requires a simple repetitive skill, which can be done in an active environment with little social or interpersonal contact. The trainable child in a world of work environment requires constant supervision and vigorous training in concepts of safety. The following are safety procedures which must be a part of the trainable child's experience. It is mandatory that she or he function within the limits of these procedures.

1. Recognizing and avoiding unsafe situations
2. Recognizing poisonous materials
3. Recognizing dangers from electrical shocks

4. Cleanliness around work stations
5. Proper use of hand tools
6. Dangers with power-driven equipment
7. Proper use of guards and safety devices with equipment
8. Falling and flying objects
9. Proper use of protective clothing
10. Protecting the eyes
11. Proper lifting methods
12. Skin Protection
13. Breathing hazards

The first part of the simulated work phase of the Employment Orientation program involves activities which revolve around the assembly type operation. This involves individual responsibility in a working group situation. A useful product is the result of a number of persons working together in a step-by-step assembly line activity. The work may center around a motorized conveyor, although any arrangement can be used to meet a particular need, ranging from a simple line of tables to the conveyor mentioned above.

To simulate the sheltered workshop environment and to condition the youngsters to the pressures of production such as attendance, lateness, and break periods, the use of a time clock is important. Each youngster must learn that there is a relationship between the clock and the reward he receives for his work. He must learn to punch in and out at the beginning and end of each day and at specified intervals during the day.

A variety of activities lend themselves to the assembly line operation. It should be remembered that the activity can be a combination of an assembly and hands-on process. One excellent activity is the collating of plastic-bound books. The procedure for this is as follows:

Materials – 79 pages, 2 covers, 1 plastic binder
Equipment – 1 paper punch, 1 plastic binder expander

1. Collate 9 pages 9 times.
   Each worker is responsible for nine pages.
2. Stack each nine-page section.
3. Collate each nine-page section
4. Punch holes in pages
5. Insert plastic binder.

Each student should be cycled through the various stations to facilitate the screening process. Opportunities to demonstrate leadership in even the most rudimentary way must be provided.

The same procedure can be used for the padding, stapling, and packaging of products. Most school districts have a wealth of material, which is printed, mimeographed, or reproduced in some manner and can be used as an almost endless supply of work for the Employment Orientation program.

Another activity which can be used is the assembly of a toy truck. The procedure is as follows:

Determine the number of work stations required.

Work Stations 1, 2, 3, 4 – assemble manufactured parts from toy truck

5 – inspect
6 – stamp
7 – place in cardboard box
8 – insert instruction sheet
9 – seal box
10 – pack determined number of toy trucks in carton
11 – seal cartons
12 – paste labels on cartons

Obviously, the above procedure can be used for any product which requires assembly. It is also possible to include sorting, stamping, or other basic skill operations in the procedures. It is also possible to include the painting of parts in the operation.

BUILDING MAINTENANCE

Simulated work experiences may also involve youngsters working in concert performing a service such as general building maintenance. This involves indoor and outdoor maintenance and landscape maintenance. A general outline of responsibilities, tools, equipment, materials, and types of jobs is as follows:

A. Responsibilities to be developed
   1. Care of equipment
   2. Safety
   3. Cleanliness
   4. Neatness
   5. Work relationships between teacher, principal, and visitors in the building in which the individual is working.

B. Personal Appearance

   1. Personal or general cleanliness
   2. Standardized and acceptable clothing

C. Tools and Equipment

   1. Brushes
      Floor, counter, radiator, scrubbing

2. Brooms
3. Floor waxing machine
   Brushes, polishers, waxes and strippers, steel wool pads
4. Pails
5. Stepladder

D. Materials

1. Furniture polish – application and use of polish
2. Sweeping compounds
3. Liquid waxes
4. Deodorants
5. Cleaners
   a. Toilet bowl
   b. Drainpipe cleaners to urinals
6. Dusting equipment
   a. Feather dusters
   b. Cheesecloth

E. Scheduling of Work

1. Establish a definite routine of schedules for each of the work areas using:
   a. Daily schedule
   b. Time allotment
   c. Supervision of activities
   d. Use time clock

F. Types of Cleaning Jobs

1. Floors
   a. Sweeping of floors
   b. Cleaning of floors and the application of waxes and polishes
2. Dusting
   Classrooms
3. Cleaning of windows and glass
   a. Tools
   b. Cleaning agents
4. Cleaning of light fixtures and changing bulbs
   Cleaning of shades
5. Cleaning and polishing of hardware
   a. Application of materials
   b. Polishing of chrome, aluminum, nickel, brass, copper

6. Scrubbing and mopping of floors
   a. Types of pails to use
   b. Mops to be used
   c. Cleaning agents
   d. Operation and cleaning machine
7. Care of and cleaning of washrooms
   Ventilation and lighting
8. Cleaning of toilets and fixtures
   a. Washbowls
   b. Toilet bowls
   c. Toilet seats
   d. Urinals
   e. Care of soap dispensers

LANDSCAPING

A. Landscaping New Building

1. New building presents almost unlimited opportunities to plan, develop, and beautify the new building.
2. Equipment for landscaping
    a. Variety of grass seed mixtures
    b. Lawn foods
    c. Peat moss
    d. Shrubs and plants

B. Materials for Landscaping

1. Variety of grass seed mixtures
2. Lawn foods
3. Peat moss
4. Shrubs and plants

C. Grasses

1. Preparation of soil
    a. Addition of fertilizers
    b. Checking soil richness by tests

FLOOR AND INDOOR MAINTENANCE

Floor Maintenance

1. Wax remover solution
2. Mop, pail, and wringer
3. Mop with handle
4. Waxing machine with pad holder
5. Strip pad for machine
6. Steel wire brush
7. Water pickup vacuum with tools (hose, handle, and squeegee tool)
8. Undercoat (seal)
9. Finish or wax
10. Polish pad

B. Maintenance Procedure

1. Mix stripping solution and apply to floor. Flood floor and allow to set for 10 minutes.
2. Strip floor slowly with waxing machine and strip pad. Do not allow solution to dry.
3. When stripping procedure is completed, vacuum the remainder of solution thoroughly.
4. Clean out mop pail thoroughly. Rinse floor twice with cold water. This will help to neutralize the alkaline condition which is left by high pH detergents.
5. Use buffing machine and polish pad to buff the floor. The friction and heat from this buffing will close pores in the tile; dry damp floors and bring up the natural luster.
6. Apply two coats of undercoat seal to close the remainder of pores. Allow first coat to dry 30 minutes. When second coat is dry, then . . .
7. Apply two coats of wax allowing first coat to dry 30 minutes. Floor should have high luster and be well protected. A daily maintenance routine should be scheduled for long wear and lasting beauty.

WINDOW CLEANING

A. Equipment Needed

1. Pail
2. Squeegee
3. Sponge or brush
4. Ammonia
5. Towel

B. Procedure

1. Mix ammonia solution as recommended.
2. Wet brush or sponge.
3. Apply to window.
4. Squeegee down and wipe squeegee after each stroke.
5. Procedure should be done weekly.

FOOD SERVICE

Good service also lends itself to simulated work activities where social skills are necessary because of the interdependent nature of the work. However, in food service occupations, the necessity of interpersonal skills is two fold; the youngster must relate to his fellow workers and also relate to some extent to the people he is serving. A general outline of tasks involved in food service occupations is as follows:

A. Serving Foods

1. Counter serving
2. Table serving

B. Cleaning Tables

1. Removal of dishes
2. Changing tablecloth
3. Proper cleaning time

C. Replenishing Basic Supplies

1. Food (staples)
2. Utensils

D. Preparing Simple Foods

1. Salads
2. Soups
3. Appetizers
4. Sandwiches
5. Desserts

E. General Cleaning Procedures for Food Service

1. Cleaning appliances
2. Washing dishes
3. Sweeping and mopping of floors
4. Refuse disposal

The second part of Employment Orientation is basic skill training. One part does not necessarily precede the other. In practice both the basic skill training and the simulated work can run simultaneously. Activities can be developed which are a combination.

Youngsters should be trained to use most of the basic hand tools and a selected number of power tools such as the electric drill and the sabre saw. Other basic skills such as sanding, tying, stenciling, finishing, painting and polishing can also be taught. Youngsters using these skills can also be part of an assembly line operation.

The success of a program of this type depends to a large extent on a constant source of materials and supplies. The combination of local, state, and federal funds is not always adequate to fill the logistical needs of these programs. It is important to remember that the community is a rich source of not only supplies and materials, but of resource people and places to visit.

The following are activities presently used in an Employment Orientation Trainable Program, which incorporate basic skill training processes using a wide variety of inexpensive, readily available tools and materials. They are also readily adaptable to the average classroom and are within the capability of the average teacher.

Preparing a Simple Breakfast Menu

Juice – Toast – Milk – Cereal

A. Primary Objectives

1. Perceptual skills
   a. Visual motor skills
   b. Eye-hand coordination
   c. Completing task in sequential order
   d. Following directions – either visual or auditive
2. Kitchen safety procedures

B. Secondary Objectives

1. Ability to prepare a simple meal necessary to independent living skills.
2. To familiarize students with need for nutritionally balanced meals.

Supplies	Where to Purchase		Cost
Orange juice (frozen)	Supermarket Local grocery		$ .29
Bread	"		.35
Butter (1 stick)	"		.25
Milk (1 qt.)	"		.43
Cereal	"		.60
Toaster	Department store Second hand store		4.00
Plastic container to hold juice in refrigerator	Department store Second hand store		.50
		Initial cost	$6.42
		Prorated cost per day	.50

C. Procedure

Step 1 – Prepare orange juice; peel strip from top of can. Remove lid. Pour orange juice concentrate into container. Fill can to top with water. Add to the container. Repeat this process three times (according to directions). This reinforces the perceptual skills, visual motor, eye-hand co-ordination, following directions, and following sequential tasks to conclusion.

Step 2 – Prepare cereal. Open box of cereal. Pour cereal into a small bowl. Instruct student to fill bowl only halfway to top. Pour milk carefully over cereal, just to cover the cereal. Sprinkle with sugar if desired. This task reinforces each perceptual skill previously noted in Step 1.

Step 3 – Toast bread. Open loaf of bread and remove the number of slices you wish to toast. Place into the slots in the toaster. Check to insure that the toaster is plugged in. Discuss safety involved in working with any utensil or appliance that utilizes electricity. Point out the dial which can be moved to produce lighter or darker toast. This step illustrates each perceptual skill. It also involves the teaching of several kitchen safety rules. All of the steps involve secondary objectives.

Step 4 – Pour glass of milk. Open quart of milk. Instruct students who are in need of help in this area as to how to open the plastic type of milk container. Place glass on table. Pour milk slowly to avoid overflowing. This task involves visual motor skills, eye-hand coordination, and the following of instructions.

Step 5 – Discuss nutritional value of foods. Various lessons can be implemented to reinforce this concept.

D. Applications to Disciplines

1. Language arts

   Verbal directions are used to teach each phase of this lesson.

2. Math

   a. Measurements are used in preparation of foods.
   b. Numbers are used in nutrition lessons and food groups.

3. Career Education

   a. Follow instructions to complete a task
   b. Operate a simple appliance with directions
   c. Stress safety procedures

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LAUNDRY

A. Primary Objectives

1. Visual discrimination
2. Eye-hand coordination
3. Following directions
4. Sequential tasks followed

B. Secondary Objective

Completion of laundry from washing to drying

Supplies	Where to Purchase	Cost
Washing machine	Appliance store	$210.00 (150.00 used)
Dryer	Appliance store	145.00 (100.00 used)
Laundry detergent	Any food store	1.70
Bleach	Any food store	.59 (½ gal.)
Measuring cups (2)	Any food store	.98 (.49 each)
Laundry basket	Any food store	1.50
	Initial cost	$359.77
	Per load	$ .60

C. Procedure

Step 1 – Washer and dryer should be marked with a marker or paint, so that dials are easily distinguishable to students. For fabric selection and temperature control, color coding can be used. For example, "whites" and "hot water" would be the same color; and "non-colorfast" and "cold water" would be another color. The same procedure is used on the dryer. This involves much visual discrimination and sequential orders.

Step 2 – All of the clothing must be sorted into whites and colored. For the more advanced student, permanent press and delicates can also be introduced into the sorting procedure. This involves visual discrimination and visual motor skills.

Step 3 – Washing machine. One load, either whites or colored, is now put into the machine. Depending on the type of detergent used, the amount varies. A one-cup measuring cup can be easily color-coded to show proper amount of detergent needed for each type of laundry load. Bleach is also put into a color-coded measuring cup and into the proper section of the machine. This involves eye-hand coordination.

Step 4 – The proper selection for fabric and temperature must now be selected according to the type of clothing being washed. This has been color coded to simplify the procedure for all students. This involves sequential steps in a given task.

Step 5 – When the washing machine has completed its cycle, the clothes are now ready for the dryer. The students transfer all clothing from the washer to the dryer. If necessary, a laundry basket should be used. This avoids clothing being dripped on the floor and involves eye-hand coordination.

Step 6 – The dryer has also been color coded so that "whites" and "hot water" correspond to "hot air" on the dryer, or "non colorfast" and "cold water" correspond to "med. air" on the dryer. This completes the entire cycle.

D. Applications to Discipline

1. Language arts
   a. Sequential tasks involved
   b. Following verbal directions
2. Math
   a. Liquid measurement cupful – ½ cup
   b. Number identification
3. Career education
   a. Follow a job when instruction is completed.
   b. Operate a simple machine.
   c. Follow safety procedures when using an electrical appliance.

TASK DEVELOPMENT

A. Primary Objectives

1. Development of visual discrimination, size and color differentiation, discerning specific shapes.
2. Cognitive development of basic numerical configurations and their relationship to amounts (quantities) of actual objects.
3. Improvement of eye-hand coordination.

B. Secondary Objectives

1. Filling of imaginary orders which will eventually aid in efficient handling of merchandise in actual job placement.
   a. Sorting
   b. Placing objects in appropriate spots
   c. Boxing and packaging techniques
   d. Working in a cooperative spirit with others.(coworkers)

C. Procedure

Teacher sets up an in-depth experience with sorting, boxing, and filling orders. These imaginary orders will be "quality checked" or "inspected" by teacher for correct amounts, correct quantities of specific types, neatness, and eventually speed of interpreting orders and filling them.

Step 1 – Task cards are made on cardboard for durability by teacher listing different combinations of various objects (one combination per card, leave reverse side blank). Card can be made just visual or words and symbols for reading students, braille for blind.

Step 2 – Student draws card and proceeds to supplies and "fills order" in available boxing (see supply list).

Step 3 – After students feel they have completed the order, they must have it "inspected" or "quality checked" by teacher. (She can give inspection stickers as rewards for correctly filled orders).

Supplies	Where to Purchase	Cost
Shoe box	Shoe store	Free
Shoe box – plastic for durability	Department store	3 for $1.00
Shapes cut from wood	Lumber yard – scraps	Free
or supermarket boxes	Supermarket	Fr
Paint	House painter (leftovers)	Free
Task boards made from plywood, tri-wall, or supermarket boxes	Supermarket	Free
Packaging materials		Free

D. Application to Disciplines

1. Language arts

   As students progress from configurations to color-keyed words and plain printed words, reading is developing. This will aid eventual reading of orders, understanding them, interpreting them, and fulfilling the task.

2. Math

   a. Counting necessary amounts of single objects
   b. Checking total amounts of order

3. Career education

   a. Since students are involved in a sorting, filling order, and packaging task, they could easily fit into assembly line and mail sorting if reading level is adequate.

   b. Stock work.

CANDLEMAKING

A. Primary Objectives

1. Perceptual skills
   a. Fine and gross motor skills
   b. Eye-hand coordination
   c. Visual discrimination
   d. Shape and form discrimination
2. Socialization
   a. Working in a group
   b. Working on an individual basis
   c. Interpersonal relationships
3. Safety
   a. Proper usage of all tools (shop and otherwise)
   b. Correct procedure concerning electrical applicances
   c. Cautious approach to hot wax
   d. Proper upkeep of tools

B. Secondary Objective

Candlemaking

C. Procedure

Step 1 – Stove or hot plates are needed to melt wax. Wax is then placed into a metal or heavy aluminum pot. If using an eleven pound slab of wax, allow one hour for melting. Use cooking thermometer to determine temperature of wax. It is ready to be poured at 230°F. At this point color, scent and steric acid will be added. Steric acid is used to insure candle will burn evenly without dripping. Gross and fine motor skills are implemented. Also, visual discrimination is necessary.

Step 2 – Cleaning of molds. All molds must be clean and dry. When using metal molds, it is necessary to clean the inner surface of each with SILI-CLEAN mold cleaner. Apply a small amount of mold cleaner to a paper towel or clean cloth. Remove all particles of old wax or dirt in this manner. This activity reinforces eye-hand coordination. If funds for purchase of metal molds are unavailable, items such as empty milk containers, baby food jars, jelly glasses, etc. can be utilized.

Step 3 – Wick insertion. At this point, the next person will insert wicks. Wire wick is used. This wick is measured along the length of the mold, leaving an extra inch on either end. The wick is then cut accordingly. The wick is then inserted through the hole or the bottom of mold, and drawn up through the top. Now, wire wick is wrapped twice around the metal stick, which comes with metal mold. If these are not available, pencils can be used. This entire process involves all of the perceptual skill mentioned. At the bottom of the mold, secure the excess wick with a piece of clay. This will seal the mold and hold the wick in place.

Step 4 – Spray molds. Spray the mold with PAM. This is necessary to insure quick removal of candle from mold once it has hardened. It also reinforces perceptual motor skills.

Step 5 – Pouring of wax. DO NOT ALLOW temperature of wax to exceed 230°F. Using kitchen mitt, dip metal pitcher into hot wax; allow excess wax to drip from bottom of pitcher before pouring. Pour wax into the mold stopping one inch below the top. Immediately, immerse the mold in a water bath. Socialization and safety skills are needed here and throughout task.

Step 6 – Refilling of candle. Approximately one hour after pouring wax, candles must be refilled. This is necessary as wax will contract when cooled, forming an indentation at bottom of candle. Fine motor skills are necessary to do this successfully. Using a knife or pencil, poke a small hole in bottom of candle, pour a small amount of hot wax in until the candle surface is uniform. Allow candle to harden overnight.

Step 7 – Candle removal. Remove all candles from the water bath; wipe with paper towels. Using a butter knife, carefully scrape clay from bottom of mold. DO NOT CUT WICK – THIS IS THE TOP OF THE CANDLE. Safety skills and care of tools are stressed. When clay has been removed, pull candle from mold by grasping wick secured to pencil; turn upright. Trim excess wick from bottom of the candle. Candle has now been completed. Both fine and gross motor skills are implemented.

Supplies	Where to Purchase		Cost
Wax (5–11 lbs.)	Kandle Kraft		$17.50 (case)
Wick (2 yds.)	" "		.39
Color	" "		.35
Scent (2 bottles)	" "		1.58
Steric acid	" "		1.58
Molds (4)	" "	@ 4.95	19.80
Clay	School supplies		
Containers	Collect		Free
Utensils (knives, scissors, spoon)	Donated or at any department store		Minimal cost
PAM	Food store		$ 1.09
Water Bath	Donated or discarded large containers		Free
Hot plates	Hammett		$10.99
Aluminum pot	Donated		Free
Cooking thermometer	Food store		$ 1.99
Mold cleaner	Kandle Kraft		$ 3.99 case
		Initial cost	$60.53

D. Application to Disciplines

1. Language arts
   a. Utilization of verbal directions
   b. Communication between coworkers when necessary
   c. Identification of tools and materials
2. Math

   Simple measurement of wicks, scents, and steric acid required to complete job
3. Career education
   a. Safety procedures and care of tools
   b. Assembly line task is implemented
   c. Completion of an assigned job satisfactorily
   d. Reinforcement of "work ethic."
   e. Prevocational training in a workshop situation

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S and S Arts and Crafts, Colchester, Connecticut 06415.

RECORD ALBUM

A. Primary Objectives

1. To develop a resource of project ideas suitable for students and teachers to draw from in a resource center.
2. To make a record album.

B. Secondary Objectives

1. To develop creativity and imagination
2. To develop social and vocational competence
3. To provide jobs related to everyday needs
4. To develop hand-eye coordination
5. To develop visual discrimination
6. To develop fine motor skills
7. To teach disciplines in the areas of language arts, math, and career education

C. Procedure

Step 1 – Obtain large greeting book from card store. Remove pages from book. Select a color of construction paper for the cover of the book. Measure the length and width of the cover of the book. Cut construction paper one inch smaller than book. Glue construction paper to cover.

Step 2 – Sort shells of the same size. Arrange shells along the side edge of the construction paper. Remove each shell and glue them one-by-one in place.

Step 3 – Sketch the title. Shape the letters, numbers, and music notes from pipe cleaners. (Use contrasting colors of construction paper and pipe cleaners). Glue pipe cleaner letters to cover.

Step 4 – Remove greeting card samples from the pages. Place two pages on the table, *used sides up*. Apply a thin line of glue to the top, bottom, and outside edges. Place the two pages neatly together to conceal the damaged sides, forming one page. Continue this process until all the pages are completed. Reserve one sheet for the index of the album.

Step 5 – Cut a cardboard pattern for the record holder. Trace outline of pattern on to sanitas. Cut out sanitas record holders.

Step 6 – Outline sides and bottom edges with a thin line of glue, and glue one holder to each page, matching bottom edges and smoothing upward. Place books or other heavy objects on pages and allow to dry for about eight hours.

Step 7 – Number each page in the record album (book).

Step 8 – Measure the reserved page with one-half inch lines to serve as "Record Index." Number each to correspond with the numbers in the album.

Supplies	Where to Purchase	Cost
Greeting card book	Greeting card store	Free
Scissor	5 & 10 cent store	$1.71
Construction paper	Department store	.69
White glue	Stationery store	.29
Pipe cleaners	Stationery store	
Sanitas	Wallpaper store	1.00
Sea shells	Sea shore, hobby shop	Free
	Cost per record album (prorated)	.25

D. Application to Disciplines

1. Language arts
   a. Color and word recognition, selection of color
   b. Balance and proportion
   c. Following verbal and written instructions
   d. Left to right progression
2. Math
   a. Number recognition
   b. Counting
   c. Sequential order
   d. Sorting
   e. Measurement
3. Career education
   a. Good workmanship
   b. Pride and interest in work
   c. Independent working as well as group activities
   d. Interest stimulated in hobbies which are economically profitable
   e. Conservation of materials through remodeling and redesigning.

E. Development of Skills as Applied to Disciplines

Through the selection of colors for the cover, the student will learn color names and color combinations. In measuring the paper for the cover, he or she will be working with balance and proportion. Here, also, the student will be developing math skills through the use of the ruler, sorting of shells, and counting the shells and pages to correspond with the numbered index. Word recognition will be developed in formation of the title for the cover as well as recognition of the names of materials used. Fine motor development will occur through the use of the scissors. Hand-eye coordination will prevail throughout the work with the album. The student should be encouraged to take pride and interest in his or her work. Urge students to conserve materials. The student should be taught to work well with others with a wholesome attitude towards work.

F. Variations of the Record Album Project

1. Guest book – for school design. Cover accordingly. Line pages for signatures and titles.
2. Cook book – for favorite recipes. Section book for various dishes – meats, breads, salads, desserts, etc.
3. Scrap book – for collection of stamps, clippings, poems, etc.
4. Photograph album – pictures
5. Baby book – keeping dates and records of baby
6. Beginners skill book – a book of samples of self-help skills – zipper, lace, button and button hole, snap, hook and eye, and others to be developed.

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Schneider, G. *Getting and Holding a Job*, Frank E. Richards Co., 215 Church Street, Phoenix, New York

SANDING AND STAINING

A. Primary Objectives

1. Eye-hand coordination
2. Visual motor coordination
3. Working in a cooperative spirit
4. Working on an individual basis
5. Following orders, completing a job

B. Secondary Objectives

Completing a finished, professional looking wood product

C. Procedure

Step 1 – Setup. Any large tables can be utilized for this project, although wooden work tables are best. It is best to SAND on one end of the table and STAIN and/or shellac on the other end. This will indicate a clear distinction between the two jobs.

Step 2 – Sanding. This procedure is quite simple. The student is shown how to hold sandpaper and how to "see" and "feel" wood products for rough spots.

For the physically limited student, sandpaper can be stapled on a two-inch block of wood for easy manipulation. This develops eye-hand coordination, visual motor skills, and the ability to work on an individual basis.

Step 3 – Stain and shellac. The sanded wood product is now passed down the table to be stained; and then it is shellacked.

A clean soft cloth is best for staining. The student must be taught to put the stain on, and to wipe it off quickly and thoroughly. The student must be cautioned to use stain sparingly. The stained wood product requires 24 hours to dry.

When dry, a wood product can then be shellacked. (if desired) A two-inch brush is good for this. This procedure illustrates following orders, completing a job, and working with others.

Supplies	Where to Purchase	Cost
Wood products (all shapes and sizes)	S & S Arts & Crafts	See catalog. Products are purchased by dozen at various costs.
Scrap wood	Donated by lumber yard	Free
Sandpaper	Hardware store or donated	$ .04 per sheet
Stain	Hardware store	$1.99
Shellac or spray shellac	Hardware store	
Cloth	Donated	Free
Brushes – one and two inch	Hardware store	$1.00

D. Application to Disciplines

1. Language arts
   a. Comprehension of orders
   b. Following verbal directions
2. Math

   Primary counting 1–10
3. Career education
   a. Workshop skills, sanding, staining, and shellacking
   b. Pre-vocational training: dealing with woodworking
   c. Safety procedures and care of tools

Sources

S & S Arts and Crafts, Colchester, Connecticut 06415

Hortoncraft Co., P.O. Box 350, Farmington, Connecticut 06032.

TELEPHONE PADS

A. Primary Objectives

1. Perceptual skills
   a. Number and letter concepts
   b. Motor skills – fine and gross
   c. Eye-hand coordination
   d. Shape and form discrimination
   e. Visual discrimination
2. Socialization
   a. Following directions
   b. Functioning in a group
   c. Working on an individual basis
   d. Interpersonal relationships

B. Secondary Objectives

Construction of a note or telephone pad.

C. Procedure

Step 1 – Paper that has been acquired from a local printer must be sorted according to like size and shape. Cardboard must be cut to the corresponding size of the pads to be made.

Step 2 – Two work tables or areas will be necessary for this job. On Table 1 there will be four places set. At each place there will be cards numbered from left to right, 1 – 2 – 3 – 4 – 5. These cards are secured to the table with masking tape. Four students will be seated at these places. In front of each place are stacks of precut paper. Students will cover each number with a single sheet of paper. This reinforces shape and form discrimination, motor skills, and visual discrimination. Next, they will gather sheets 1 – 2 – 3 – 4 – 5 together in a pile. These will be placed upon the empty, colored square of oak tag directly above the numbered cards.

Step 3 – Phase two will involve another person collecting all four stacks of five. These are carried to Table 2. Table 2 has four squares of oaktag secured to its surface. Each is numbered "20". This step reinforces following directions, eye-hand coordination, and interpersonal relationships.

The same process is repeated four times at Table 1 until all four squares at Table 2 are covered.

Step 4 – At this point the next worker will collect all four piles of 20 into one pile of 80 sheets. This will be placed on a corresponding sized sheet of cardboard. He will straighten all edges until they are even.

The next worker will place the finished pad carefully between two bricks. These act as a vise. The end of the pad is coated liberally with printers glue. Following directions, working on an independent basis, and functioning in a group are reinforced. Letter and number discrimination are stressed. The pads are left to dry overnight.

Supplies	**Where to Purchase**	**Cost**
Paper and cardboard (any type of scrap paper)	Donated by local printer	Free
Oaktag (9" x 12")	Hammett's or similar (catalog)	$1.25 pkg.
Paint brushes	Hardware store	.60
Bricks	Donated	Free
Printer's glue	Donated or purchased from printer	$1.99
	Total Cost	$6.84

D. Application to Disciplines

1. Language arts
   a. Communication between coworkers
   b. Follow verbal directions
   c. Recognition of shapes and sizes, valuable for prereading skills.
2. Math
   a. Number identification, 1 – 5
   b. Number concepts
   c. Sequential numbering
3. Career education
   a. Assembly line work is implemented
   b. Pre-vocational training in following directions
   c. Completing a job sequentially in its entirety

EMBOSOGRAF CARDBOARD SIGNS

A. Primary Objectives

1. Perceptual skills
   a. Eye-hand coordination
   b. Visual motor skills
2. Pre-vocational job training

B. Secondary Objective

Completion of printed-to-order cardboard sign

C. Procedure

Step 1 – Print the words that are ordered on a thin sheet of paper with a magic marker. Turn sign over. The marker has come through to the other side. This is the sign printed backwards. This is how it must be copied and laid out on the setup chart. This involves visual-motor skills.

Step 2 – Pick out type you need from type rack. Cut setup chart to exact size of sign desired. Line up type on this easy-to-follow chart, using a ruler. This involves eye-hand coordination and fine motor skills.

Step 3 – Place colored paper over the type with colored side down, touching type. The gross motor skills are exercised.

Step 4 – Lay the sheet of cardboard cut to size (colored side down) over type and colored paper. Be sure that all four edges are lined up evenly. Fine visual-motor skills are necessary to complete successfully.

Step 5 – Push platen under the head of the Embosograf machine (pressure area). Pull handle down, causing type to emboss colored paper onto cardboard. (Note: The type is now locked in place on waxed setup chart.) The machine has been marked at one-inch intervals with magic marker. Push platen to next line and print. Continue until sign is completed.

Step 6 – Pull platen out of machine. Remove excess colored paper from sign. Use a weaving left to right motion to do this. Pick out centers of closed letters. (A, O, B etc.) This requires fine motor skills.

Step 7 – Sign must be heat-treated to insure longevity. Place sign between oaktag sheets. Press hot iron over sign for four firm strokes. This involves gross motor skills.

Supplies	Where to Purchase	Cost
Embosograf machine	Embosograf Corporation 38 West 21st Street New York, New York 10010	$195.00
Type rack	Same as above or self made	Free
Type, one inch	Same as above	$ 80.00
Colored paper (Specially treated 50)	Same as above	$ 13.00
Cardboard sheets (100)	Same as above	$ 40.00
Iron 9	Thrift Shop	
	Initial Cost	$328.00
	Prorated Cost	$ .10 per sign $ .25 Sell at

D. Application to Disciplines

1. Language arts
   a. Verbal directions are utilized
   b. Communication between coworkers is necessary
2. Math
   a. Numbers and letter identification
   b. One inch interval must be utilized in printing
   c. Measuring and cutting for signs and colored paper
3. Career education
   a. Assembly line work is implemented
   b. Following job instruction outlined to completion
   c. Pre-vocational training with type setting
   d. Operating a simple machine
   e. Safety procedures and care of tools.

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